Seq1: Hi-AF (104 mers)

5'-gatcctttatggttgtttacactgactgcactgaatccggtcagaacctgtgcctgtg cgaaggctctaacgtttgcggccagggcaacaaatgcatcctgggc-3'

Seq2: Hi-AR (107 mers)

5'-ctctagagcccaggatgcatttgttgccctggccgcaaacgttagagccttcgcacag gcacaggttctgaccggattcagtgcagtcagtgtaaacaaccataaag-3'

Seq3: Hi-BF (111 mers)

5'-tctagaggcgaaaaaatcaatgcgttactggcgaaggtactccacaaggctttgaat cccggaagaatagaaaccgcagtctccgacgacagaacctgcaataatagggc-3'

Seq4: Hi-BR (108 mers)

5'-ggccgccctattattgcaggtattcttccgggatttcttcaaagtcgccgtcgttgtg agactgcggtttcggagtaccttcgccagtaacgcattgatttttttcgc-3'

FIG. 1

Seq5: Hi-PCR-AF (33 mers)

5'-tcgggatcctttatggttgtttacactgactgc-3'

Seq6: Hi-PCR-AR (31 mers)
5'-gcctctagagcccaggatgcatttgttgccc-3'

Seq7: Hi-PCR-BF (38 mers)

5'-ggctctagaggcgaaaaaaatcaatgcgttactggcga-3'

Seq8: Hi-PCR-BR (32 mers)

5'-catgcggccgccctattattgcaggtattctt-3'

FIG. 2

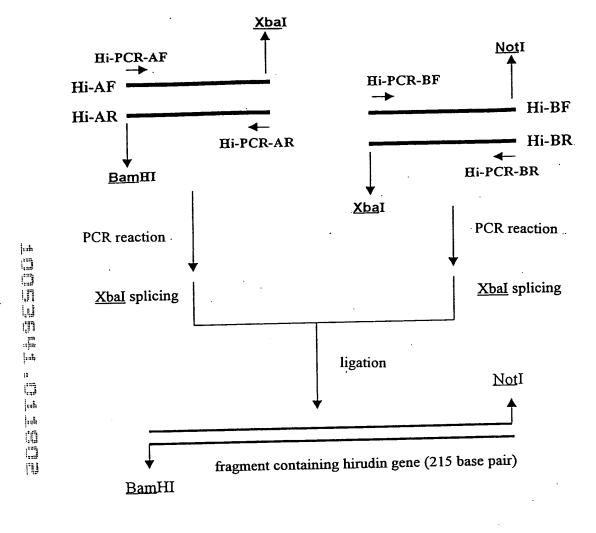


FIG. 3

GATCCTTT ATG GTT GTT TAC ACT GAC TGC ACT GAA TCC GGT CAG
AAC CTG TGC CTG TGC GAA GGC TCT AAC GTT TGC GGC CAG GGC
AAC AAA TGC ATC CTG GGC TCT AGA GGC GAA AAA AAC CAG TGC
GTT ACT GGC GAA GGT ACC CCG AAA CCG CAG TCT CAC AAC GAC
GGC GAC TTC GAA GAA ATC CCG GAA GAA TAC CTG CAG TAA TAGGGC

Met Val Val Tyr Thr Asp Cys Thr Glu Ser Gly Gln Asn Leu Cys Leu Cys Glu Gly Ser Asn Val Cys Gly Gln Gly Asn Lys Cys Ile Leu Gly Ser Arg Gly Glu Lys Asn Gln Cys Val Thr Gly Glu Gly Glu Gly Thr Pro Lys Pro Gln Ser His Asn Asp Gly Asp Phe Glu Glu Ile Pro Glu Glu Tyr Leu Gln

FIG. 4

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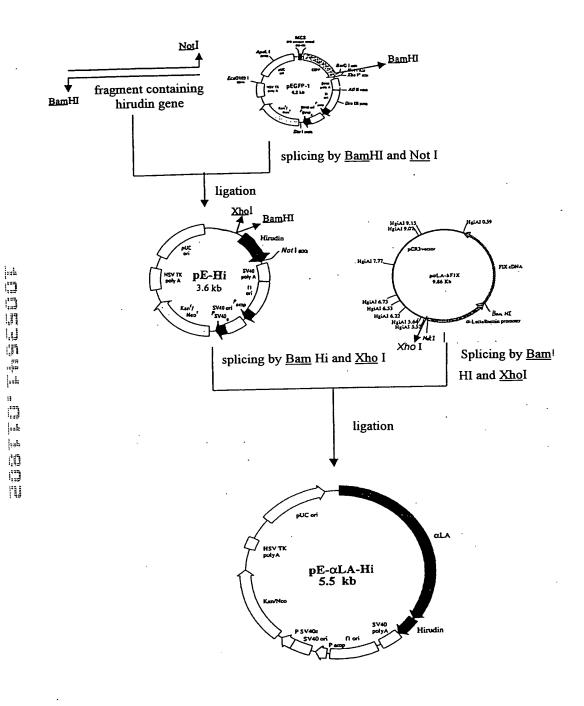
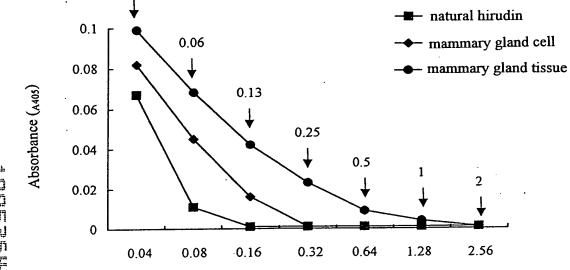


FIG. 5

0.03 mg homogenization solution of mammary gland cell

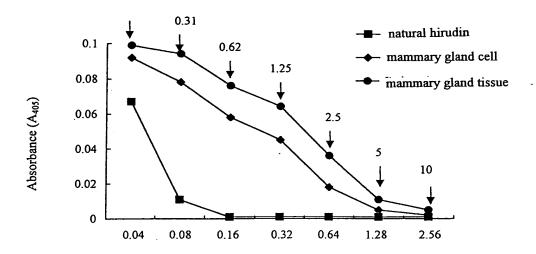


concentration of natural hirudin (pmole)

FIG. 6

APPRICATE DITE

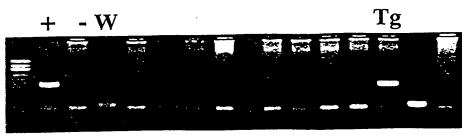
$0.15~\mu l$ culture solution of mammary gland cell



concentration of natural hirudin (pmole)

FIG. 7





(B)

I DECEPT OF TOTAL

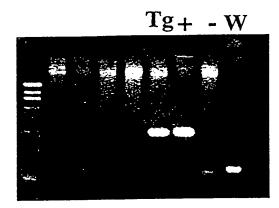


FIG. 8